

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>				1. CONTRACT ID CODE <div style="text-align: center;">12</div>		PAGE OF PAGES <div style="text-align: center;">1      4</div>	
2. AMENDMENT/MODIFICATION NO. <div style="text-align: center;">140</div>		3. EFFECTIVE DATE <div style="text-align: center;">February 1, 2008</div>		4. REQUISITION/PURCHASE REQ. NO. <div style="text-align: center;">N/A</div>		5. PROJECT NO. (If applicable)	
6. ISSUED BY Procurement Office George C. Marshall Space Flight Center National Aeronautics and Space Administration Marshall Space Flight Center, AL 35812		CODE <div style="text-align: center;">PS31-J</div>		7. ADMINISTERED BY (If other than Item 6) Brenda F. Tate (256) 544-7673 Phone (256) 544-8993 Fax Brenda.F.Tate@nasa.gov		CODE <div style="text-align: center;">PS31-J</div>	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State, and Zip Code)  Science Applications International Corporation (SAIC) Company 6, Technology Services Company 10260 Campus Point Drive San Diego, CA 92121 c/o 6725 Odyssey Drive, Huntsville, AL 35806				(✓)			
				9A. AMENDMENT OF SOLICITATION NO.			
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT/ORDER NO. <div style="text-align: center;">NNM04AA02C</div>			
CODE CAGE- 0T5L1      FACILITY CODE      SAP- 103429				X			
				10B. DATED (SEE ITEM 13) <div style="text-align: center;">1/1/04</div>			

**11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS**

[ ] The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers [ ] is extended, [ ] is not extended.  
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:

(a) By completing Items 8 and 15 and returning \_\_\_\_\_ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)  
N/A

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS,  
IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

(✓)	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation data, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
X	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: FAR 43.103(a), the "Changes" clause, the "Limitation of Funds" clause, and Mutual Agreement
	D. OTHER (Specify type of modification and authority)

**E. IMPORTANT:** Contractor [ ] is not, [X] is required to sign this document and return 3 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

	Negotiated <u>Estimated Cost</u>	Base <u>Fee</u>	Award Fee <u>Earned</u>	Potential <u>Award Fee</u>	Contract <u>Value</u>	Total Sum <u>Allotted</u>
Prev. Base Total	(b)(4)		\$33,967,189	(b)(4)		\$846,346,717
This Modification			\$0			(\$30,006)
Rev. Base Total			\$33,967,189			\$846,316,711

SEE PAGE 2 FOR DESCRIPTION OF AMENDMENT/MODIFICATION

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect

15A. NAME AND TITLE OF SIGNER (Type or print) Jill C. Watkins, Senior Contracts Manager		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Walter S. Melton III, Contracting Officer	
15B. CONTRACTOR/OFFEROR  <div style="text-align: center;"><u>/s/ Jill C. Watkins</u></div> (Signature of person authorized to sign)	15C. DATE SIGNED <div style="text-align: center;">January 31, 2008</div>	16B. UNITED STATES OF AMERICA  BY <u>/s/ Walter S. Melton III</u> (Signature of Contracting Officer)	16C. DATE SIGNED <div style="text-align: center;">February 1, 2008</div>

**AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT**  
(continued)

PR 4200233457	PLI 1	\$118,950 (GSFC Funding)
PLI 214/ALI 510		(\$124,000) (Deobligation)
PLI 224/ALI 240		<u>(\$24,956)</u> (Deobligation)
NET DEOBLIGATION		(\$30,006)

The purposes of this modification are to: (A) incorporate a change to Attachment J-1, Performance Work Statement (PWS), Sections 3.6 and 3.7 for Internet Protocol Address Management (IPAM) and Virtual Private Network (VPN) Agency Support; (B) definitize the Contractor's proposal SAIC-P-043 entitled "UNITeS IPAM and VPN Agency Support", dated January 11, 2008, and submitted in response to NASA/MSFC letter request for proposal PS31-J/AA02C-07-294 dated December 19, 2007; (C) provide an amount of \$118,950 in funding; (D) deobligate an amount of \$148,956 (This will result in a net decrease in funding of \$30,006); and (E) revise clause G.2, Submission of Vouchers for Payment, to reflect a revised billing address. Accordingly, NNM04AA02C is modified as follows:

- A. Under Section B, Clause B.2, Estimated Cost and Award Fee, the total potential Estimated Cost is increased by (b)(4) (from (b)(4) ) for Option Year 2 as reflected in CLIN 005 in paragraph (a). The total Potential Award Fee is increased by (b)(4) for Option Year 2 reflected as CLIN 005 in paragraph (a). These amounts are based on the following breakouts:

SAIC-P-043  
Paragraph (a)

	<u>Estimated Cost</u>	<u>Potential Award Fee</u>
02/01/08 - 06/30/08	(b)(4)	
07/01/08 - 12/31/08		
<b>TOTAL</b>		

	<u>Estimated Cost</u>	<u>Potential Award Fee</u>
CLIN 005	(b)(4)	

- B. Under Section B, Clause B.3, Award Fee for Service Contracts, paragraph (i) is revised to reflect the adjusted Potential Award Fee pools for the periods affected by this definitization modification.
- C. Under Section B, Clause B.6, Contract Funding, the total amount allotted by the Government is decreased by \$30,006. The total amount obligated is therefore decreased from \$846,346,717 to \$846,316,711. This results from the obligation of \$118,950 in funding and the deobligation of \$148,956, for a net deobligation/decrease of \$30,006. As a result of this action, the funded through date of June 17, 2008 remains unchanged.
- D. Under Section B, Clause B.6, Contract Funding, an amount of (b)(4) is removed from Estimated Cost in order to provisionally fund (b)(4) of the Potential Award Fee for the periods 7/1/07 to 12/31/07 and 1/1/08 to 6/30/08. An amount of (b)(4) is therefore allocated to Provisional Award Fee in order to reflect the net deobligation of (b)(4) in funding as described in "B" above. Contractor billing of provisional award fee for any period shall not exceed (b)(4) of the Potential Award Fee pool available for that period. Balance of fee shall be paid upon allocation of Earned Award Fee as determined by the UNITeS Fee Determination Official. This action will not result in a revised coverage date.
- E. Under Section G, Clause G.2, SUBMISSION OF VOUCHERS FOR PAYMENT (1852.216-87)(MAR 1998), is hereby revised to reflect the NASA Shared Services Center, Stennis Space Center, as the correct billing address for the submission of cost and fee vouchers. This address revision is effective for all invoices submitted after February 1, 2008.
- F. Attachment J-1, Performance Work Statement, is revised to incorporate the changes to PWS Sections 3.6 and 3.7, IPAM and VPN Agency Support (Pages J-1-35 to J-1-39) based on the definitization of the SAIC proposal.
- G. Attachment J-7, Small Business Subcontracting Plan, is amended to include the subcontracting plan supplement required by definitization of the referenced proposal for "UNITeS IPAM and VPN Agency Support". It is noted that the definitized amount exceeds \$(b)(4) and adjusts the associated subcontract amounts. This plan is not numbered but is incorporated as part of Attachment J-7. Future subcontracting plan supplements will also be incorporated as part of this attachment. It is noted that the cumulative contract value associated with this plan supplement, and future plan supplements, will include contract value increases that fell below the threshold requiring submission of a small

business subcontracting plan supplement, if applicable. Therefore, the cumulative value page of each supplement will also reflect definitization of these proposals.

- H. On the Standard Form 26, Award/Contract, Block 15G, the total contract value is increased by (b)(4) to (b)(4) in recognition of the actions taken in (A) above.
- I. The modification(s) made above are reflected in total on the change page(s) enclosed herewith. In order to reflect the change(s) made, the page(s) listed below are hereby deleted from, or added to, NNM04AA02C. Either bolded text or a vertical change bar included in the right margin indicates the specific area(s) of change.

<u>Page(s) Deleted</u>	<u>Page(s) Added</u>
B-2 (Mod. 133)	B-2 (Mod. 140)
B-3 (Mod. 133)	B-3 (Mod. 140)
B-5 (Mod. 133)	B-5 (Mod. 140)
B-8 (Mod. 139)	B-8 (Mod. 140)
G-1	G-1 (Mod. 140)
G-2	G-2 (Mod. 140)
J-1-35	J-1-35 (Mod. 140)
J-1-36 (Mod. 69)	J-1-36 (Mod. 140)
J-1-37	J-1-37 (Mod. 140)
J-1-38 (Mod. 61)	J-1-38 (Mod. 140)
J-1-39 (Mod. 116)	J-1-39 (Mod. 140)
	J-7, Supplement 24 (Mod. 140)

- J. In recognition of the modification(s) agreed to herein as complete equitable adjustments for the Contractor's "proposal(s) for adjustment" listed below, the Contractor hereby releases the Government from any and all liability under this contract for further equitable adjustment(s) attributable to such facts or circumstances giving rise to the "proposal(s) for adjustment."

Contract  
Change Identification  
Modification No. 140

NASA/MSFC  
Letter Request for Proposal  
PS31-J/AA02C-07-294  
dated December 19, 2007

Contractor  
Proposal Number

SAIC proposal  
SAIC-P-043  
dated January 11, 2008  
and submitted via SAIC letter  
SAIC-08-003 dated  
January 11, 2008

- K. All other terms and conditions of contract NNM04AA02C remain unchanged.



B.2 ESTIMATED COST AND AWARD FEE

(a) The estimated cost and contract fees are as follows:

Contract Year	Period Covered	Estimated Cost	Base Fee	Earned Award Fee	Potential Award Fee
Base Year 1	1/1/04-6/30/04	(b)(4)		\$2,696,331	(b)(4)
Base Year 1	7/1/04 - 12/31/04			\$4,851,221	
Base Year 2	1/1/05-6/30/05			\$4,910,402	
Base Year 2	7/1/05 - 12/31/05			\$5,162,909	
Base Year 3	1/1/06-6/30/06			\$5,301,669	
Base Year 3	7/1/06 - 12/31/06			\$5,385,246	
TOTAL Base				\$28,307,778	
Option Year 1	1/1/07-6/30/07			\$5,659,411	
Option Year 1	7/1/07 - 12/31/07				
TOTAL Opt. 1					
Option Year 2	1/1/08-6/30/08				
Option Year 2	7/1/08 - 12/31/08				
TOTAL Opt. 2					
	TOTAL			\$33,967,189	

\* AF denotes Award Fee  
 \*\* SF denotes Subjective Fee  
 \*\*\*OF denotes Objective Fee

(b) The estimated cost and award fees applicable to the base period and each option period are as follows:

CLIN	Qty.	Unit	Estimated Cost	Award Fee
<b>BASIC PERIOD</b> (January 1, 2004 thru December 31, 2006)				

001****	1	Job	(b)(4)
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			Estimated Amount	Maximum Amount
002	1	ID/R	\$0	\$1,500,000

\*\*\*\*The total of Estimated Cost, Earned Award Fee, and Potential Award Fee associated with CLIN 001 shall not be exceeded unless revised by bilateral contract modification.

CLIN	Qty.	Unit	Estimated Cost	Award Fee
<b>OPTION PERIOD 1 (Jan. 1, 2007 thru Dec. 31, 2007) (Exercised)</b>				
003	1	Job	(b)(4)	
			<u>Estimated Amount</u>	<u>Maximum Amount</u>
004	1	ID/R	\$0	\$500,000 (Exercised)

CLIN	Qty.	Unit	Estimated Cost	Award Fee
<b>OPTION PERIOD 2 (Jan. 1, 2008 thru Dec. 31, 2008) (Exercised)</b>				
005*	1	Job	(b)(4)	
			<u>Estimated Amount</u>	<u>Maximum Amount</u>
006*/**	1	ID/R	\$0	\$500,000 (Exercised)

\* No costs against CLINS 005 and 006 shall be expended prior to 1/1/08.  
 \*\*The actual value of CLIN 006 will be the summation of individual task orders issued pursuant to this clause and clauses B.7 and B.8. A reconciliation modification will be issued as required to reflect the current task order summation value in Clause B.2.

(End of clause)

### **B.3 AWARD FEE FOR SERVICE CONTRACTS**

(a) The contractor can earn award fee from a minimum of zero dollars to the maximum stated in **Clause B.2, "ESTIMATED COST AND AWARD FEE"** in this contract.

(b) Beginning 6 months after the effective date of this contract, the Government shall evaluate the Contractor's performance every 6 months to determine the amount of award fee earned by the contractor during the period. The Contractor may submit a self-evaluation of performance for each evaluation period under consideration. These self-evaluations will be considered by the Government in its evaluation. The Government's Fee Determination Official (FDO) will determine the award fee amounts based on the Contractor's performance in accordance with **ATTACHMENT J-5, UNITED CPAF EVALUATION PLAN**. The plan may be revised unilaterally by the Government prior to the beginning of any rating period to redirect emphasis. Performance evaluation for PWS sections 3.0 and 5.0 will be evaluated against the standards delineated in **ATTACHMENT J-4, PERFORMANCE MEASUREMENT STANDARDS**. Any changes to this ATTACHMENT will be made by bilateral contract modification.

(c) The Government will advise the Contractor in writing of the evaluation results. The NASA/MSFC Financial Management Office, RS23 will make payment based on issuance of a unilateral modification by the Contracting Officer.

(d) The amount of award fee which can be awarded in each evaluation period is limited to the amounts set forth

(i) The amount of award fee which has been awarded pursuant to this clause, the potential award fee available for the period, and the period to which said fee applies is set forth below:

Contract Year	Period Covered	Base Fee	Earned Award Fee	Potential Award Fee
Base Year 1	1/1/04- 3/30/04	(b)(4)	\$270,275	(b)(4)
	3/31/04- 6/30/04		\$2,426,056	
Base Year 1	7/1/04 - 12/31/04		\$4,851,221	
Base Year 2	1/1/05-6/30/05		\$4,910,402	
Base Year 2	7/1/05 - 12/31/05		\$5,162,909	
Base Year 3	1/1/06-6/30/06		\$5,301,669	
Base Year 3	7/1/06 - 12/31/06		\$5,385,246	
Option Year 1	1/1/07-6/30/07		\$5,659,411	
Option Year 1	7/1/07 - 12/31/07			
Option Year 2	1/1/08-6/30/08			
Option Year 2	7/1/08 - 12/31/08			

\* AF denotes Award Fee \*\* SF denotes Subjective Fee

\*\*\*OF denotes Objective Fee

(End of Clause)

#### B.4 ALLOWABLE ITEMS OF COST (MSFC 52.242-90) (FEB 2001)

(a) In accordance with advance agreement between the Government and the Contractor for this contract, allowable costs for the items listed below are subject to the ceilings shown:

Ceilings on General And Administrative Costs-

<u>Period</u>	<u>Rate</u>
1/1/04 - 12/31/04	(b)(4)
1/1/05 - 12/31/05	
1/1/06 - 12/31/06	
1/1/07 - 12/31/07	
1/1/08 - 12/31/08	

B.5 PREMIUM FOR SCHEDULED OVERTIME (MSFC--52.222-90) (FEB 2001)

Pursuant to the clause entitled "Payment for Overtime Premiums," the amount of overtime premium authorized shall not exceed the amount specified below for the indicated period.

<u>Period</u>	<u>Amount</u>
1/1/04 to 12/31/04	(b)(4)
1/1/05 to 12/31/05	
1/1/06 to 12/31/06	
1/1/07 to 12/31/07	
1/1/08 to 12/31/08	

(End of clause)

B.6 CONTRACT FUNDING (1852.232-81) (JUN 1990)

(a) For purposes of payment of cost, exclusive of fee, in accordance with the Limitation of Funds clause, the total amount allotted by the Government to this contract is (b)(4). This allotment is for performance in all areas and covers the following estimated period of performance: contract award through June 17, 2008.

(b) An additional amount of (b)(4) is obligated under this contract for payment of fees.

(c) Recapitulation of funding is as follows:

	<u>Previous</u>	<u>This Action</u>	<u>Total</u>
Estimated Cost	(b)(4)		
Base Fee			
Provisional Award			
Fee (Funded at (b)(4))			
Award Fee Earned	<u>\$33,967,189</u>	<u>\$0</u>	<u>\$33,967,189</u>
Total Sum Allotted	\$846,346,717	(\$30,006)	\$846,316,711

(End of clause)

B.7 INDEFINITE DELIVERY/REQUIREMENTS

(a) The completion effort (definite quantity) of this contract is considered to be those services negotiated for the estimated cost and fees for the basic contract period and each priced option period. Work that cannot be sufficiently identified, predetermined, or quantified is identified as Requirements work.

(b) Requirements work is specified as that effort that exceeds the performance bands specified in PWS sections 5.1, MSFC Applications and Web Services, and 3.9.4 and 5.10.4, Maintenance.

## SECTION G

### CONTRACT ADMINISTRATION DATA

#### G.1 LISTING OF CLAUSES INCORPORATED BY REFERENCE

NOTICE: The following clauses are hereby incorporated by reference:

1852.227-70 New Technology (May 2002)  
1852.242-71 Travel Outside of the United States  
(Dec 1988)  
1852.242-73 NASA Contractor Financial Management  
Reporting (Jul 2000)

(End of Clause)

#### G.2 SUBMISSION OF VOUCHERS FOR PAYMENT (1852.216-87) (MAR 1998)

(a) The designated billing office for cost vouchers for purposes of the Prompt Payment clause of this contract is indicated below. Public vouchers for payment of costs shall include a reference to the number of this contract.

(b) (1) If the contractor is authorized to submit interim cost vouchers directly to the NASA paying office, the original voucher should be submitted to:

NASA Shared Services Center (NSSC)  
Financial Management Division (FMD) - Accounts Payable  
Building 1111, C. Road  
Stennis Space Center, MS 39529

Email: NSSC-AccountsPayable@nasa.gov  
Fax: (866) 209-5415

(2) For any period that the Defense Contract Audit Agency has authorized the Contractor to submit interim cost vouchers directly to the Government paying office, interim vouchers are not required to be sent to the Auditor, and are considered to be provisionally approved for payment, subject to final audit.

(3) Copies of vouchers should be submitted as directed by the Contracting Officer.

(c) If the contractor is not authorized to submit interim cost vouchers directly to the paying office as described in paragraph (b), the contractor shall prepare and submit vouchers as follows:

(1) One original Standard Form (SF) 1034, SF 1035, or equivalent Contractor's attachment to:

N/A

(2) Five copies of SF 1034, SF 1035A, or equivalent Contractor's attachment to the following offices by insertion in the memorandum block of their names and addresses:

(i) Copy 1 NASA Contracting Officer  
(ii) Copy 2 Auditor  
(iii) Copy 3 Contractor  
(iv) Copy 4 Contract administration  
office; and  
(v) Copy 5 Project management office.  
(3) The Contracting Officer may designate other recipients as required.  
(d) Public vouchers for payment of fee shall be prepared similarly to the procedures in paragraphs (b) or (c) of this clause, whichever is applicable, and be forwarded to:

NASA Shared Services Center (NSSC)  
Financial Management Division (FMD)- Accounts Payable  
Building 1111, C. Road  
Stennis Space Center, MS 39529

This is the designated billing office for fee vouchers for purposes of the Prompt Payment clause of this contract.

(e) In the event that amounts are withheld from payment in accordance with provisions of this contract, a separate voucher for the amount withheld will be required before payment for that amount may be made.

(End of clause)

G.3 DESIGNATION OF NEW TECHNOLOGY REPRESENTATIVE AND PATENT REPRESENTATIVE (1852.227-72) (JUL 1997)

(a) For purposes of administration of the clause of this contract entitled "New Technology" or "Patent Rights--Retention by the Contractor (Short Form)," whichever is included, the following named representatives are hereby designated by the Contracting Officer to administer such clause:

	<u>Title</u>	<u>Office Code</u>	<u>Address</u>
New Technology Representative	Chief, Technology Utilization	CD30	MSFC, AL 35812
Patent Representative	Chief, Intellectual Property Counsel	LS01	MSFC, AL 35812

### **3.6.9 Internet Protocol Resource Management**

The contractor shall manage, assign, and delegate the NASA Internet Protocol resources assigned to the Agency. The contractor shall coordinate with the appropriate Regional Internet Registry (RIR), such as the American Registry of Internet Numbers (ARIN) and Reseaux IP Europeens (RIPE), for registration of NASA's networks and IP management policies.

#### **3.6.9.1 Internet Protocol Address Management (IPAM)**

The contractor shall provide systems engineering and sustaining engineering support functions for NASA's IPAM systems. In performance of this function, the contractor shall:

- d. Provide updated security patches and updates to all NASA IPAM servers which were installed under the Agency IPAM Project.
- e. Manage system/database backups for the IPAM system.
- f. Perform centralized management of the IPAM application.
- g. Perform system health monitoring of the IPAM servers.
- h. Provide hardware maintenance for the Agency's IPAM servers installed under the IPAM Project.

#### **3.6.9.2 Dynamic Host Configuration Protocol (DHCP)**

The contractor shall provide centralized management for DHCP under the Agency Internet Protocol Address Management (IPAM) system. In performance of this function, the contractor shall:

- a. Provide updated security patches and updates to all NASA DHCP servers which were installed under the Agency IPAM Project.
- b. Perform centralized management of the IPAM DHCP application.
- c. Perform system health monitoring of the IPAM DHCP servers.
- d. Provide hardware maintenance for the Agency's DHCP servers installed under the IPAM Project.

### **3.6.10 Facsimile Broadcast Service**

Facsimile broadcast provides the capability for NASA users to send a document to multiple recipients, as established on a preset distribution list, via a single transmission. In providing this service, the contractor shall:

- a. Establish and maintain user accounts.
- b. Assist users in building and modifying distribution lists.
- c. Report performance and utilization metrics (DRD 974MA-006).

### **3.6.11 Office Space**

The contractor shall provide office space in support of the services described in 3.6.

## **3.7 SYSTEMS MANAGEMENT AND OPERATIONS**

The contractor shall provide network scheduling, network monitoring, network control and system management, problem management, WAN operational support, and control centers in support of the services described in this PWS. Systems Management and Operations functions provided in support of GSFC local services and performed by the NASCOM Operations Management Center, Goddard TV Central, Goddard Voice Control, and Goddard Technical Control Facilities will be provided by the MOMS contract. The UNITEs contractor shall establish agreements and joint operations procedures with the



The contractor shall pursue or modify WAN peering as Agency requirements dictate and with coordination through the government point of contact.

#### **3.6.5.2 Dedicated Data Services**

Although NASA encourages the use of routed data services, the contractor shall provide full-time, dedicated bandwidth between two or more discrete locations, due to performance and/or security considerations, or to support unique data transfer protocols not otherwise supported by the routed data network. The contractor shall minimize the use of dedicated data services and encourage the use of routed data services. The contractor shall document and provide rationale for use of dedicated services. GSA contracts shall be used for the procurement of the bandwidth.

#### **3.6.5.3 High Rate Data/Video**

The contractor shall maintain a one-way, multi-mode/multi-channel High Rate Data System, designed for operation over a full C-band (36 MHz) domestic communications satellite transponder or equivalent terrestrial telecommunications network. This service provides a medium for transport of a Tracking and Data Relay Satellite System (TDRSS) user's digital baseband return link when the rates are 2 Mbps or higher. The system has an upper limit for the user's data of 48 Mbps. When not used for data, the service shall be used for the transmission of video information in a user's TDRSS return link from the White Sands Complex (WSC) to JSC.

#### **3.6.5.4 Network Timing**

The contractor shall maintain a network timing system to provide single-reference Stratum 1 timing for all NISN WAN network equipment, and to provide Network Timing Protocol (NTP) service to all NISN SIP and PIP customers.

#### **3.6.5.5 Virtual Private Networks**

The contractor shall provide NASA centers the ability to transport data through virtual private networks (VPN). The contractor shall provide both encrypted and non-encrypted VPN offerings.

#### **3.6.6 International Services**

The contractor shall provide international telecommunications services to facilitate communications with NASA's International Partner Agencies and their research facilities. GSA contracts shall be used for the procurement of the bandwidth. This service provides transport of data, voice, facsimile, electronic mail, and video. International services are currently provided to the following international partners: European Space Agency (ESA), Canadian Space Agency (CSA), Center National d'Etudes Spatiales (CNES), and National Space Development Agency for Japan (NASDA). The contractor shall facilitate payments to suppliers in support of agreements with international partners.

#### **3.6.7 Technical Services (Dedicated)**

The contractor shall provide dedicated engineering and other technical support for specific customers as designated by the COTR.

#### **3.6.8 Directory Services**

The contractor shall provide systems engineering and sustaining engineering support functions to support NASA's directory service. In performance of this function, the contractor shall:

- a. Operate the root-level NASA directory.
- b. Replicate data with all Center-level directories.
- c. Update directory schemas to support new or changing application requirements.

Millennia and MOMS and contractors for systems management and operations services performed at GSFC. The agreements shall address how the contractors will work together to accomplish the following:

- a. Ensure there is no overlap in responsibility or authority with staffing;
- b. Ensure overall staffing does not exceed available physical space;
- c. Ensure continuity of service and efficient use of resources to perform end-to-end troubleshooting.

#### **3.7.1 Network Scheduling**

The contractor shall provide scheduling and coordination to optimize the operation of all WAN entities. The work period is normally performed 7:00 am to 7:00 pm, Central Time, Monday through Friday. The contractor shall:

- a. Provide scheduling of satellite transponders, systems and circuit releases used in the network.
- b. Distribute communication alert messages to network users and common carriers notifying them of mission critical support periods.
- c. Issue preliminary and final service advisory messages as necessary.
- d. Provide on-site coverage during mission critical periods, as defined by the COTR.
- e. Maintain a daily log of all network-scheduling activities (DRD 974MA-006).
- f. Coordinate and interface with the government and other contractors in accordance with government guidance.
- g. Provide an e-mail-based activities scheduling system, which shall notify approved users of user-impacting activities at least 10 calendar days prior to conducting the activity. The contractor shall provide a feedback mechanism for customers to request cancellation or rescheduling of activities. The contractor shall also provide an electronic mail-based outage notification system to inform approved users of major service outages. Activity and outage reports shall be archived and available via the web to approved users (DRD 974MA-006). The contractor shall grant access to this system and archived information to the COTR-designated personnel and shall ensure no unauthorized users gain access.
- h. Adhere to NASA mission freeze policies which disallow network changes during mission-critical periods, follow the NASA freeze exemption request and waiver process, and coordinate requests for exemptions to network freezes.

#### **3.7.2 Network Monitoring**

The contractor shall provide network monitoring capabilities, tools, systems, and procedures to meet service performance requirements as specified in the NISN Services Document, NISN 001-001 (DRD 974MA-007). Network monitoring shall be performed so as not to impact operational service performance. The contractor shall provide:

- a. Network monitoring and control of remote devices and physical parameters at remote gateways.
- b. Visibility into supplier network management systems where available and secure.
- c. Network-based monitoring tools that can be utilized to illustrate near-real-time service utilization and status. These tools shall illustrate capacity, performance, and utilization per location.
- d. Web-based tools illustrating performance metrics and specific bandwidth rates across Layer 3 hardware ports to be made available to approved customers and other help desks.
- e. Secure access to Layer 2 and Layer 3 network equipment to COTR-designated personnel.

- f. Reporting of service performance metrics in support of service level agreements (DRD 974MA-006).
- g. Software and hardware systems to monitor and control, in real-time, system performance parameters such as network latency and response for the entire system, end-to-end, from user device to the server.
- h. Monitoring, in real-time, of a user session, to view user interaction and keystrokes, and to intervene and take control if necessary.
- i. Discover and correct most system problems before causing any customer impact.
- j. Cable management tools, desktop appliance management tools, server management tools.
- k. Large screen display of critical, real-time, system parameters.
- l. View and document system traffic patterns and develop expansion plans to react to traffic peaks without user impact (DRD 974MA-006).
- m. Capture data to support system tuning.
- n. Review and reconciliation of vendor outages to determine credits due to the government.
- o. Monthly and quarterly carrier performance reports to government (DRD 974MA-006).
- p. Recommendations to the government for the improvement of carrier performance and the resolution of recurring problems (DRD 974MA-006).

### **3.7.3 Network Control and System Management**

The contractor shall be responsible for the account management, system administration, technical control, and WAN operational support.

#### **3.7.3.1 Account Management**

The contractor shall provide a unified approach for:

- a. Creating, deleting, changing, tracking, and reporting on user accounts and passwords for systems and tools used to provide the services in this PWS (DRD 974MA-007).
- b. Coordinating in a seamless fashion with the Integrated Enterprise Management Competency Center (IEMCC) to implement IEM and data center accounts (DRD 974MA-007).

#### **3.7.3.2 System Administration**

The contractor shall provide systems administration support for control center services.

#### **3.7.3.3 Technical Control**

The contractor shall:

- a. Staff and maintain the control capability that is operational 24 hours per day 7 days per week at the NASA Information Category Level of "Mission (MSN)," as defined in NPR 2810.1A.
- b. Provide configuration of high speed, wideband and video transport systems to meet specific mission requirements.
- c. Coordinate with the government and interface with other contractors in accordance with government guidance.

#### **3.7.3.4 Domain Name Service (DNS)**

The contractor shall provide systems engineering and sustaining engineering support functions for NASA's DNS systems, at the domain level of nasa.gov. In performance of this function, the contractor shall:

- a. Provide name registration for systems at the nasa.gov and scijinx.gov domains.
- b. Provide sub-delegation to networks required to join NASA's network domain; e.g., msfc.nasa.gov.
- c. Provide updated security patches and updates to all NASA DNS servers which were installed under the Agency IPAM Project.
- d. Perform centralized management of the IPAM DNS application.
- e. Perform system health monitoring of the IPAM DNS servers.
- f. Provide hardware maintenance for the Agency's DNS servers installed under the IPAM Project.

#### **3.7.4 Problem Management**

The contractor shall maintain systems and processes to respond to service problems detected by the contractor or their vendors or to problems reported by users. The contractor shall provide:

- a. A capability to automatically route calls to appropriate control center operators. This capability shall include dedicated voice communications lines (e.g., orderwires) between control centers.
- b. User-initiated and supplier-initiated problem reporting and resolution processes (DRD 974MA-006).
- c. Escalation procedures and contacts for the contractor and the suppliers (DRD 974MA-007).
- d. Automatic tracking and logging of customer trouble calls (DRD 974MA-006).
- e. Processes, criteria, and point of contact (including other services providers and suppliers) necessary for effecting problem resolution (DRD 974MA-007).
- f. A knowledge management capability to assist in resolution of troubles on the first call and to identify trends.
- g. Call status metrics such as caller queue times and abandoned calls (DRD 974MA-006).
- h. Real-time fault isolation and restoration of failed services, including coordination with carriers.
- i. Maintain a daily log of installation trouble shooting and restoration activities (DRD 974MA-006).